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Sugar preference patterns of American Robins. KRISTIN E. BRUGGER and CURTIS O. NELMS, USDA/APHIS/Denver Wildlife Research Center, 2820 E. University Ave., Gainesville, FL 32501.

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We tested the preferences of American Robins (Turdus migratorius) for 3 fruit sugars, fructose (f), glucose (G), and sucrose (S), as well as a sugar mixture (GF). Because robins lack sucrase, we predicted that they would avoid consuming foods that contain sucrose. In pairwise choice tests of agar cubes with or without the sugars, robins preferentially ate F, G, and GF cubes, but not S. In pairwise tests of sugars, replicated twice per bird, the sugar preference pattern of robins was F = G = GF > S. Birds that ate sucrose had lower total consumption and higher fecal sugar concentrations than when they ate other sugars. The sugar preferences of robins and other species that are pests to agricultural fruit crops merit further study, especially as related to the development of high-sucrose strains of commercial fruits and new techniques to reduce potential bird-damage problems.